

Maintenance of Critical Parish Wide Infrastructure

Public Works Maintains and Improves Critical Parish Wide Infrastructure: Roads, Storm Water Pumping Network, and Grass Cutting of Parish Property and Rights-of-Way.

- 213 miles of roads
- 390 miles of drainage ditches/subsurface drainage
- 105 miles of major conveyance canals
- 52 pumping stations with capacity to drain over 4 million gallons per minute
- 130 individual pumps with capacity of over 3.5 million gallons per minute
- 20 of our pumping stations include telemetry
- 9-10 new pumping stations built over the next ten years increasing pumping capacity by more than 25%.

Since 2002, Public Works has been able to finance the maintenance and improvements to our drainage system as well as serve as the Parish’s financier in the event of a major storm using a surplus. **That surplus will run out in 2015.**

Annual Operating Costs

General Operation and Maintenance Costs (Oil changes, Fuel, minor repairs, utilities etc.)		\$2.54 M
Annual Materials Accrual Needed	\$2.84 M	
Personnel Costs	<u>\$2.28 M</u>	
Total Annual Operating Costs	\$7.66 M	

Annual Materials Accrual

PUMP SIZE	TOTAL PUMPS	REPLACEMENT FREQUENCY	ANNUAL ACCRUAL COST
20"	5	1 every 5 years	\$70,000
24"	25	1 per year	\$110,000
30"	12	1 per year	\$170,000
36"	10	1 per year	\$210,000
42"	13	1 every 5 years	\$55,000
48"	22	1 per year	\$625,000
54"	5	1 every 5 years	\$65,000
60"	6	1 every 10 years	\$117,500
72"	2	1 every 10 years	\$179,775
Annual Pump Accrual Cost Total			\$1,602,275
Other Accrual Costs Total			<u>\$1,238,000</u>
Total Annual Accrual Cost			\$2,840,275

PROJECT DESCRIPTION

PURPOSE

The purpose of the project is to reduce localized flooding in the East Bank of St. Charles Parish.

DESIGN

The overall design capacity of the pump station is 1300 cfs (580,000 gpm).

The station has five 250 cfs (112,000 gpm) and one 50 cfs (37,400 gpm) pumps.

The Airline Highway Borrow Canal acts as the conduit to feed the pumps. A canal has been built interconnecting the east and west sides of Interstate 310, its size depending on pumping capacities of Cross Bayou Pump Station and the future St. Rose Pump Station.

COST

Construction cost was \$18.8M.

- LaDOTD (7.3m)
- Pontchartrain Levee District (6.5m)
- * Donation from Shell (2.5m)
- * Donation from Motiva (2.5m)

PROJECT SPONSORS



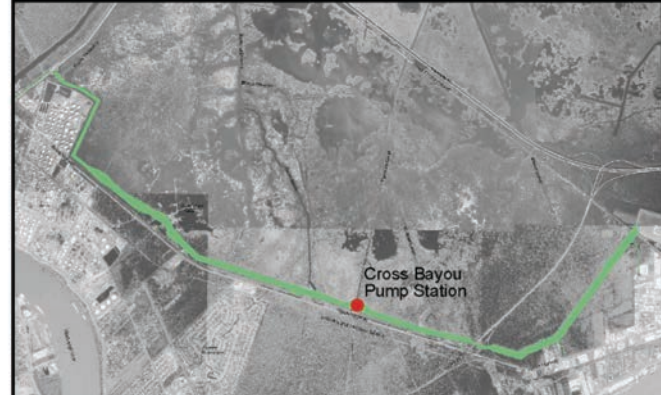
LOUISIANA DEPARTMENT
OF TRANSPORTATION
AND DEVELOPMENT



PONTCHARTRAIN
LEVEE DISTRICT

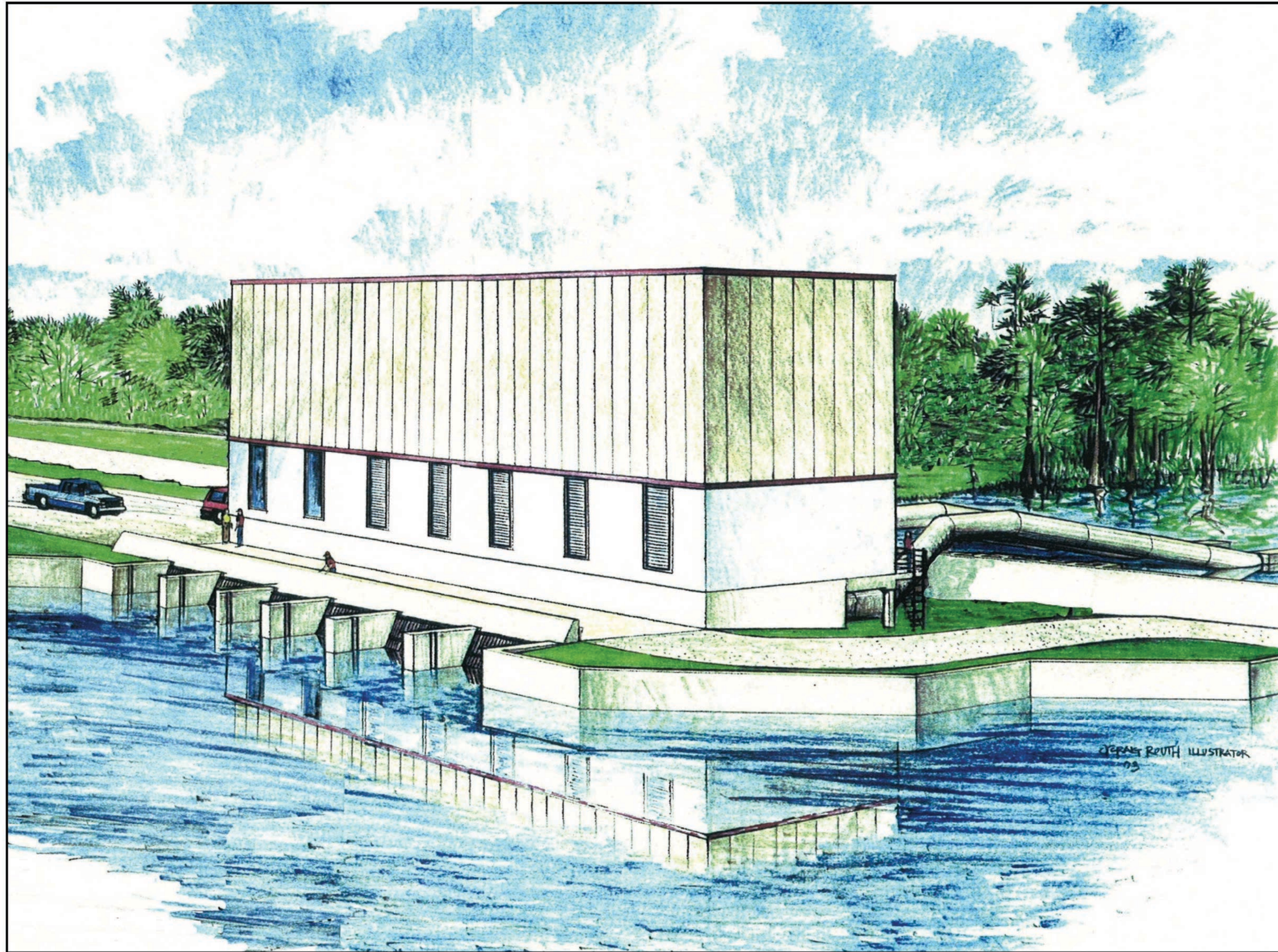


VICINITY MAP



CROSS BAYOU PUMP STATION

ST. CHARLES PARISH EAST BANK URBAN FLOOD CONTROL PROJECT

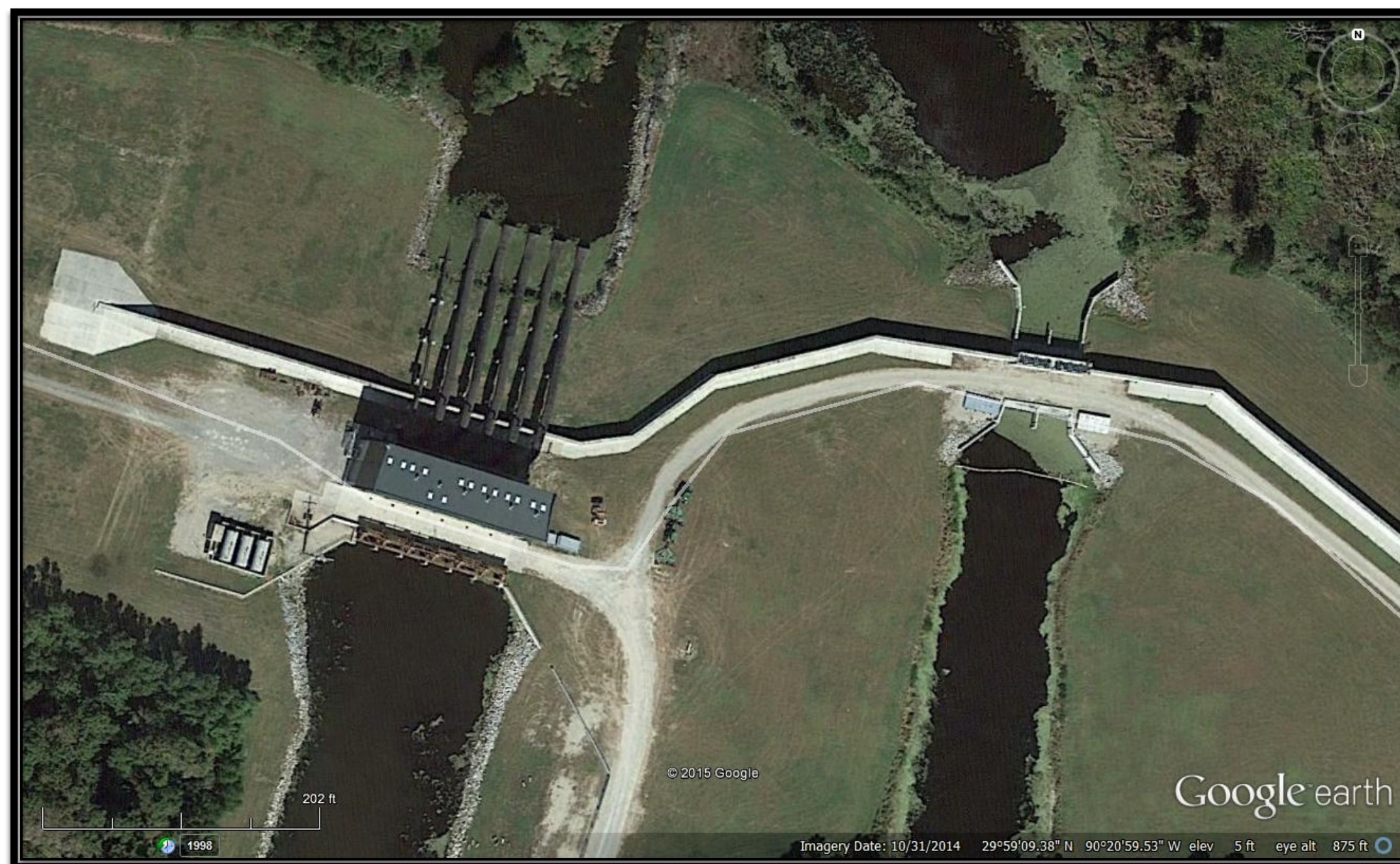


The Cross Bayou Pump Station was a partnership between Louisiana DOTD, Pontchartrain Levee District, Motiva, Shell, and St. Charles Parish to provide flood protection and storm water drainage on the East Bank of St. Charles Parish.

The Cross Bayou Pump Station is a 100-year Interior Drainage Capacity Station.

Other East Bank External Pump Stations:

Almedia Structure
Bayou Trepagnier
Engineer's Canal
Prescott
Walker Structure



Some of the West Bank of St. Charles Parish receives protection from the Federal West Bank and Vicinity (WBV) system. St. Charles Parish and the Lafourche Basin Levee District (LBLD) are responsible for maintenance and upkeep of the portions of the WBV in St. Charles Parish.

The hurricane storm damage and risk reduction system, Western Tie-in, starts with a levee tie in to the Mississippi River Levee (MRL), adjacent to the Davis Pond Mississippi River Diversion. There is an earthen ramp Hwy. 18 to cross over the levee, then floodgates across the Union Pacific Railroad Tracks. The line of risk reduction proceeds south as a levee beside the Davis Pond Diversion Channel, crosses the BNSF Railroad in a swing gate and then Highway 90 as a floodwall with bridge overpass, connecting to a floodwall with sluice gates. The line of risk reduction then proceeds east along the north shore of marshland above Lake Cataouatche, crosses the Sellers Canal with a navigable sector gate and drainage structure and ties into the Lake Cataouatche Levee.

The federal system on the West Bank protects Ama. Areas of St. Charles Parish such as Hahnville, Boutte, and Luling remain vulnerable.

West Bank and Vicinity Structures

